

Claims

1. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal comprising the steps of
 - 10 i) contacting a test compound with a KLK11 polypeptide,
 - ii) detect binding of said test compound to said KLK11 polypeptide.
2. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal comprising the steps of
 - 15 i) determining the activity of a KLK11 polypeptide at a certain concentration of a test compound or in the absence of said test compound,
 - ii) determining the activity of said polypeptide at a different concentration of said test compound.
3. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, 30 reproduction disorders, dermatological diseases, respiratory diseases, gastro-

enterological diseases and cancer disorders in a mammal comprising the steps of

- 5 i) determining the activity of a KLK11 polypeptide at a certain concentration of a test compound,
- ii) determining the activity of a KLK11 polypeptide at the presence of a compound known to be a regulator of a KLK11 polypeptide.
- 10 4. The method of any of claims 1 to 3, wherein the step of contacting is in or at the surface of a cell.
- 5. The method of any of claims 1 to 3, wherein the cell is in vitro.
- 15 6. The method of any of claims 1 to 3, wherein the step of contacting is in a cell-free system.
- 7. The method of any of claims 1 to 3, wherein the polypeptide is coupled to a detectable label.
- 20 8. The method of any of claims 1 to 3, wherein the compound is coupled to a detectable label.
- 9. The method of any of claims 1 to 3, wherein the test compound displaces a ligand which is first bound to the polypeptide.
- 25 10. The method of any of claims 1 to 3, wherein the polypeptide is attached to a solid support.
- 11. The method of any of claims 1 to 3, wherein the compound is attached to a solid support.

12. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastro-enterological diseases and cancer disorders in a mammal comprising the steps of
 - i) contacting a test compound with a KLK11 polynucleotide,
 - 10 ii) detect binding of said test compound to said KLK11 polynucleotide.
13. The method of claim 12 wherein the nucleic acid molecule is RNA.
- 15 14. The method of claim 12 wherein the contacting step is in or at the surface of a cell.
15. The method of claim 12 wherein the contacting step is in a cell-free system.
- 20 16. The method of claim 12 wherein polynucleotide is coupled to a detectable label.
17. The method of claim 12 wherein the test compound is coupled to a detectable label.
- 25 18. A method of diagnosing a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal comprising the steps of
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- i) determining the amount of a KLK11 polynucleotide in a sample taken from said mammal,
 - 5 ii) determining the amount of KLK11 polynucleotide in healthy and/or diseased mammals.
19. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal comprising a therapeutic agent which binds to a KLK11 polypeptide.
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20. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal comprising a therapeutic agent which regulates the activity of a KLK11 polypeptide.
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21. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal comprising a therapeutic agent which regulates the activity of a KLK11 polypeptide, wherein said therapeutic agent is
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- i) a small molecule,
 - 30 ii) an RNA molecule,
 - iii) an antisense oligonucleotide,
 - iv) a polypeptide,

- v) an antibody, or
 - vi) a ribozyme.
22. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal comprising a KLK11 polynucleotide.
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- 10 23. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal comprising a KLK11 polypeptide.
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- 20 24. Use of regulators of a KLK11 for the preparation of a pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal.
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- 25 25. Method for the preparation of a pharmaceutical composition useful for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal comprising the steps of
- 30 i) identifying a regulator of KLK11,

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- 5 ii) determining whether said regulator ameliorates the symptoms of a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders in a mammal; and
- 10 iii) combining of said regulator with an acceptable pharmaceutical carrier.
26. Use of a regulator of KLK11 for the regulation of KLK11 activity in a mammal having a disease comprised in a group of diseases consisting of cardiovascular diseases, urological diseases, endocrinological diseases, metabolic diseases, reproduction disorders, dermatological diseases, respiratory diseases, gastroenterological diseases and cancer disorders.